

THE ALLOTYPE OF AMPHIPSYLLA NEOTOMAE I.
FOX, 1940 (SIPHONAPTERA: DOLICHOPSYLLIDAE)

By G. F. AUGUSTSON
Allan Hancock Foundation
The University of Southern California

Among many fine fleas recently obtained by the writer from K. E. Stager, Mammalogist, Los Angeles Museum, is a species known from males only. So little literature is available concerning this particular ectoparasite it seems advisable to the writer to present his analysis of it at this time, following it with a brief discussion of previous work on the genus *Amphipsylla* to which it belongs.

FAMILY DOLICHOPSYLLIDAE

AMPHIPSYLLA NEOTOMAE I. FOX, 1940

Allotype Female

HEAD: Frontal notch present, acuminate, about half way from angle of frons; eyes distinctly reduced, weakly pigmented; labial palpi five segmented, slightly shorter than fore-coxa; max-

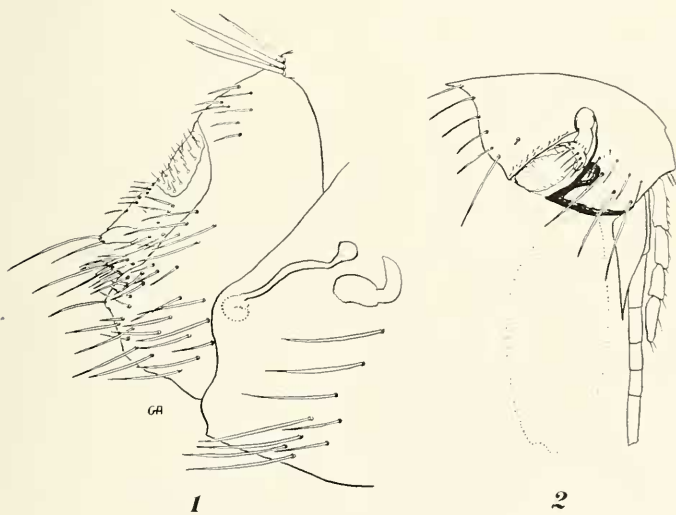


PLATE 8

Fig. 1. *Amphipsylla neotomae* I. Fox, posterior extremity, allotype female.

Fig. 2. *Amphipsylla neotomae* I. Fox, head, allotype female.

illa acuminate; genal process rather sharp, somewhat heavily chitinized along borders of process; preantennal region with two rows of bristles, three large bristles in lower row, four smaller in upper row; postantennal region with only marginal bristles and one small (broken) bristle; posterior margin of antennal groove with a row of small setae; bristles on second segment of antennae short, about one-third length of club.

THORAX, ABDOMEN AND LEGS: Pronotal ctenidium of eleven slender, pointed spines on a side, metanotum with three small tergal teeth, none on first abdominal tergite, three on second, two on third; three antepygial bristles, the middle one-fourth longer than the outer, one-third longer than inner; style short, thick, with a single long, terminal bristle and one two-thirds as long dorso-ventral; sternite X angulate, thickly beset with bristles; sternite VII broad, with a broad, shallow sinus midway; bursa copulatrix very diagnostic, prominent, a slightly undulate, uniform "tube" with one end enlarged into a bulb-like structure; spermatheca barrel-shape, with a sharply curved tail; legs as in other members of the genus, the lateral bristles on tibia and tarsi of all legs being thick and heavily pigmented.

Allotype: a female taken by K. E. Stager from *Spilogale gracilis arizonae* Mearns at Carrizo Creek, Riverside County, California. Deposited in the U. S. National Museum.

Paratype: a female taken by K. E. Stager from same host as above at Riverside Mountains, Riverside County, California. Retained by writer.

Additional Records: a male taken with the paratype. Also a male taken by the same collector and location as above from *Bassariscus astutus* subsp.

Discussion: the original description of *A. neotomae* I. Fox appears on page 273, Jour. Wash. Acad. Sci., vol. 30, no. 6, 1940. Previously Dr. Fox described *A. ewingi* (Proc. Ent. Soc. Wash., vol. 42, pp. 64-65). This constituted the first known *Amphipsylla* record from North America. The records as obtained by K. E. Stager gives a new southern and eastern extension to those already known with additional host information.

The genus *Amphipsylla* Wagner is an interesting one. The armature of the male genitalia is similar with the exception of *A. neotomae*, in this species the finger differs greatly from other members of the genus. The females are more constant, there being only a small difference in the shape of the spermatheca and bursa copulatrix to distinguish *A. matis* Jordan (Nov. Zool., vol. 35, p. 164) from *A. neotomae*.

The presence of *Amphipsylla* in our Western flea fauna further strengthens the opinions of various Siphonapterists of the close relationships of western Nearctic fleas to the Palearctic. Wagner ("The Fleas of British Columbia." *Can. Ent.*, vol. 68, p. 194, 1936) states "in comparing them (western nearctic) with Palearctic fauna we find a certain number of species which coincide with species of East-Asia and genera which distinctly reminds one of the Asiatic ones. . . . I take the liberty of noting in the list of fleas of British Columbia some instances of the parallelism between its aphanipterological fauna and that of Asia." Jordan (1929) has likewise noted this close relationship. The addition of *Geusibia* Jordan by the writer (*Bull. So. Calif. Acad. Sci.*, vol. 39, pp. 203-4, 1940) to our western Nearctic fauna is beyond doubt also a convincing factor in this remarkable relationship.



NOTES ON THE LARVA AND CHRYSALIS OF *POLITES THEMISTOCLES* LATR.

By V. G. DETHIER

John Carroll University, Cleveland, Ohio

Previous descriptions of the fully grown larva of *Polites themistocles* Latr. are based almost wholly on a single specimen reared by Fletcher (Scudder, 1889). Last year when twenty-three of these larvae were bred to maturity, certain very conspicuous characters of diagnostic value were noted which were not mentioned in the early account. Since this species may be recognized easily by characteristic patterns on the head and anal plate, it is felt that these should be brought to attention.

LAST INSTAR: Head height 2.6 mm.; head width 2.5 mm. The ivory to light sienna color pattern which is sometimes faintly indicated in the preceding instar becomes conspicuous here (Plate 9, fig. A). Most prominent of the entire design are the four median stripes. On either side of the coronal suture a stripe extends from the vertex to the tops of the adfrontals. The remaining two include the adfrontals and are in the shape of an inverted "V". The former are usually irregular in outline and of equal width throughout; the latter, sharply defined and tapering toward the mandibles. The ocelli are surrounded by a circular area of the same color. Frequently there are two darker less conspicuous elongate patches on the clypeus. In all of these